

# ACO External Drainage



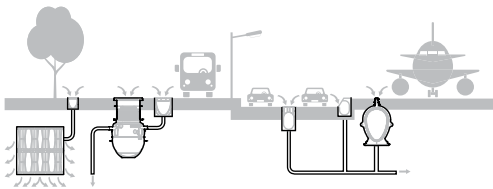
## ACO DRAIN *SlabDrain Line*

**H100-8/H100-10 - 4" internal width, polymer edge channels**

**H100K-8/H100SK - 4" internal width, metal edge channels**

**H200K/H200SK - 8" internal width, metal edge channels**

**H300K/H300SK - 12" internal width, metal edge channels**



## ACO DRAIN

ACO Drain is the market leading modular trench drain system and is ideal for commercial applications varying from gas stations to airports.

ACO Drain systems consist of factory manufactured, modular channel units made from either corrosion-resistant, polymer concrete or fiberglass, together with grates from a variety of materials for all loading applications. ACO Drain systems are available in 2", 4", 8" and 12" internal widths, and most systems are available with a built-in slope for up to 130 ft (40 meters) of continuous slope.

The ACO Drain product line is segmented into different product types depending on use:

### 1. KlassikDrain

*KlassikDrain - K100/K200/K300*  
*MiniKlassik - K50*  
*Brickslot*

### 2. PowerDrain

*PowerDrain - S100K/S200K/S300K*

### 3. Slab Solutions

*SlabDrain*  
*FlowDrain*  
*MembraneDrain*



## SlabDrain

SlabDrain is a shallow invert trench drain system ideal for applications where site depth restrictions are of concern.

Available with 3 different edge details:

- **H series** - non-metallic polymer concrete edge
- **HK series** - galvanized or stainless steel edge rail
- **HSK series** - ductile iron edge rail

Each system comes with a choice of grates up to a maximum EN 1433 Load Class F (90 ton loading).

Available in 3 different internal widths:

- **4"** - H100-8, H100-10, H100K-8 & H100SK-10
- **8"** - H200K-13 & H200SK-13
- **12"** - H300K-13 & H300SK-13

Choice of grate locking systems:

- **QuickLok** - H100-8, H100-10, H100K-8, H200K-13 & H300K-13
- **DrainLok** - H100K-8/H200K-13 & H300K-13
- **PowerLok** - H100SK-10, H200SK-13 & H300SK-13
- **4-bolts for extra grate security** - H100SK-10, H200SK-13 & H300SK-13

For full product details refer to the ACO Drain Technical Handbook or contact your nearest ACO sales office.

### Typical applications

- **Restricted depth applications**
- **Parking decks**
- **Elevated slabs**
- **Animal welfare centers**
- **Boarding kennels**
- **Retro-fit**
- **Threshold applications**



**SlabDrain features**

**HSK Series offers integrally cast-in ductile iron edge rail -** Provides maximum strength and protection for channel body.

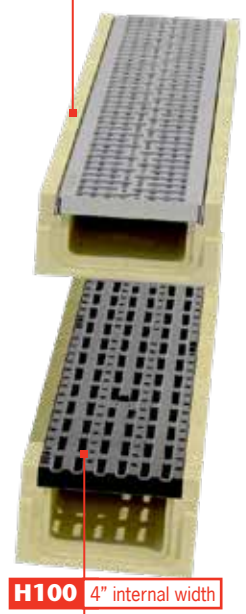
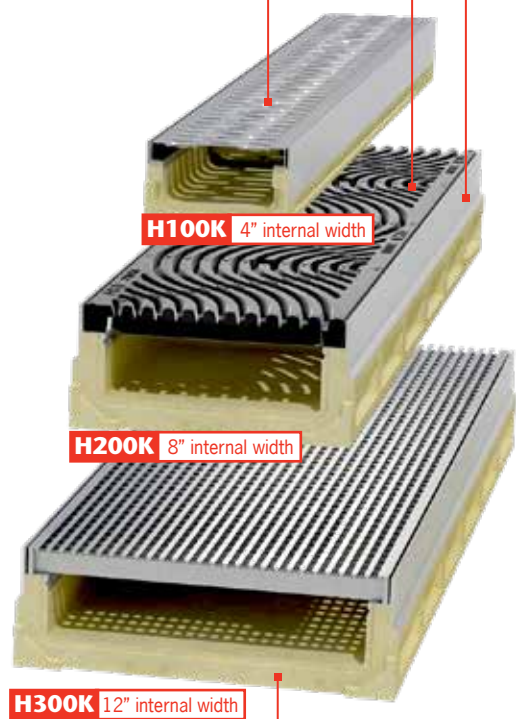
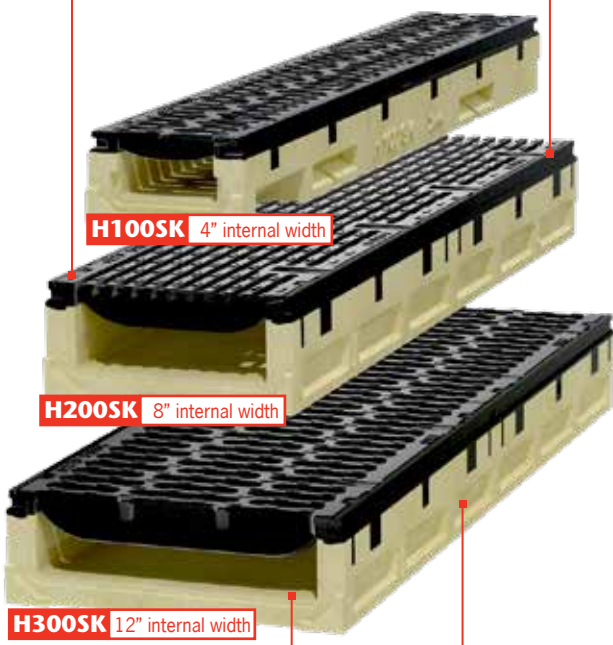
**DrainLok on HK Series -** Patented, boltless and barless locking system provides quick fitting and removal of grates. Helps reduce installation/maintenance time and cost.

**HK Series offers integrally cast-in galvanized steel edge rail -** Provides additional strength and protects channel body from damage. (Stainless steel edge rail also available).

**HSK Series ductile iron grates -** Heavy duty ductile iron slotted or longitudinal grates to Load Class F (90 tons).  
**PowerLok -** Patented, boltless locking system that provides quick fitting and removal of grates.  
**4-Bolt -** 4-bolt option for added security.

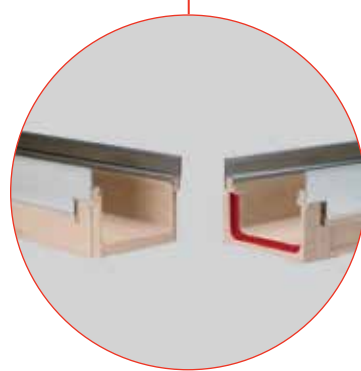
**QuickLok on H and HK Series -** Patented, boltless locking system provides quick fitting and removal of grates. Helps reduce installation/maintenance time and cost.

**H1 Series polymer concrete edge -** Ideal for situations where metals cannot be used. Product is also used for the base of MembraneDrain.



**Profiled side walls -** frost keys provide channel body strength and mechanical keying to concrete surround.

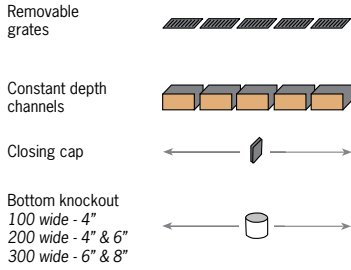
**Interconnecting end profiles -** Allows easy and effective joining of channels.  
**SF Sealant Groove -** A groove is cast into the ends of every channel. This allows for appropriate flexible sealant to be inserted at joints.



**Bottom drill-outs** Included on all constant depth channels to allow vertical evacuation of system at any point in the run.  
 Drill-outs sized for:  
 4" pipes - H100-8/H100-10/H100K-8/H100SK-10;  
 4" & 6" pipes - H200K-13/H200SK-13;  
 6" & 8" pipes - H300K-13/H300SK-13

**Wide choice of grates -** Various materials, styles and slot configurations (including ADA compliant).  
**H Series -** from Load Class A to Load Class C (25 tons).  
**HK Series -** from Load Class A to Load Class E (60 tons).

# SlabDrain Channels

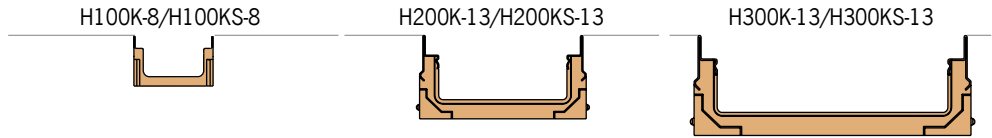


## H Series

	H100-8 - 4" internal width			H100-10 - 4" internal width		
	Part No	Invert in <sup>1</sup>	Weight Lbs	Part No	Invert in <sup>1</sup>	Weight Lbs
Constant depth channel - 39.37" (1m)	00985	2.56	20.0	00549	3.25	25.0
Closing end cap	05935	-	1.0	05939	-	1.0
Debris strainer for 4" bottom KO	93488	-	0.2	93488	-	0.2
QuickLok™ locking bar	02899	-	0.1	02899	-	0.1
Grate removal tool	01318	-	0.3	01318	-	0.3

### Notes:

- For overall channel depth add nominal 0.6" to invert depth.
- Select grates from page 5 - QuickLok H100 grates.

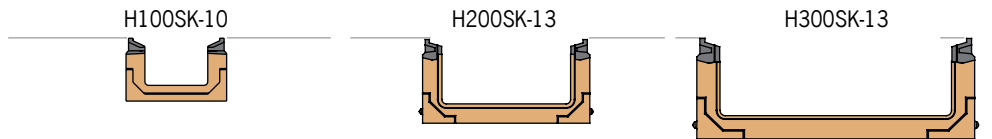


## HK/HKS Series

	4" internal width				8" internal width				12" internal width			
	Part No	Part No	Invert in <sup>1</sup>	Weight Lbs	Part No	Part No	Invert in <sup>2</sup>	Weight Lbs	Part No	Part No	Invert in <sup>2</sup>	Weight Lbs
	H100K-8	H100KS-8 <sup>3</sup>			H200K-8	H200KS-8 <sup>3</sup>			H300K-8	H300KS-8 <sup>3</sup>		
Constant depth channel - 39.37" (1m)	95365	95373	2.56	16.0	93454	93455	3.94	57.4	93464	93465	3.94	71.6
Steel closing cap	98462	98471	-	1.0	93458	93459	-	1.0	93468	93469	-	1.4
Debris strainer for 4" bottom KO	93488		-	0.2	93488		-	0.2	-		-	-
QuickLok™ locking bar	02899		-	0.1	10457		-	0.5	10458		-	0.7
Grate removal tool	01318		-	0.3	01318		-	0.3	01318		-	0.3

### Notes:

- H100K-8 overall channel depth add nominal 0.6" to invert depth; H200K-13/H300K-13 overall channel depth add nominal 1.2" to invert depth.
- Select grates from pages 5-7 in appropriate width - QuickLok or DrainLok grates.
- H100KS-8/H200KS-13/H300KS-13 have Grade 304 stainless steel rails and closing cap.



## HSK Series

	H100SK - 4" internal width			H200SK - 8" internal width			H300SK - 12" internal width		
	Part No	Invert in <sup>1</sup>	Weight Lbs	Part No	Invert in <sup>1</sup>	Weight Lbs	Part No	Invert in <sup>1</sup>	Weight Lbs
Constant depth channel - 39.37" (1m)	93412	2.83	43.5	63456	3.94	66.4	63466	3.94	82.2
Steel closing cap	93410	-	1.0	93460	-	1.0	93470	-	1.4
Debris strainer for 4" bottom KO	93488	-	0.2	93488	-	0.2	-	-	-
Grate removal tool	01318	-	0.3	01318	-	0.3	01318	-	0.3

### Notes:

- For overall channel depth; H100SK-10 add nominal 1.0" to invert depth; H200SK-13/H300SK-13 overall channel depth add nominal 1.2" to invert depth.
- Select grates from page 7 in appropriate width - PowerLok/4-bolt grates.



**H & HK QuickLok™ Grates**

Comprised of either a glass nylon stud or steel pin fitted to grate and a removable QuickLok™ bar in channel, QuickLok™ locks grate to channel by aligning stud over locking bar and applying pressure until they snap together. With no loose bolts or bars, QuickLok™ provides a highly secure boltless lock that is still easy to take apart for maintenance and cleaning. This saves time and money during installation.



**Fit locking bar**

Locate locking bar in channel wall recesses by rotating clockwise. Use hammer to tap bar into place, so that serrated ends grip in recess.



**Fit grate**

To install grate, align QuickLok™ stud directly over locking bar. Push down or stand on grate until it clicks into position.



**Grate removal**

To remove first grate, insert grate removal tool into slots at end of grate, pull up sharply. Remove remaining grates by hand.

To remove bar, insert screwdriver into hole at end of bar and lever back serrated end; rotate bar free.

**H100/H100K QuickLok™ grates**

**LOAD CLASS C - EN 1433 - 56,000lbs - 1,162psi**

		Length mm	Part No	Wgt lbs					
	Type 481Q Iron decorative	500	97120	9.0	✓	✗	✗	✓	38.8
	Type 479Q Iron mosaic	500	97116	10.0	✓	✗	✗	✓	24.6

**LOAD CLASS E - EN 1433 - 135,000lbs - 2,788psi**

	Type 461Q Iron slotted	500	96752	10.2	✗	✗	✗	✓	31.1
	Type 435Q Galv slotted	1000	31550	13.7	✗	✗	✗	✓	27.4
	Type 436Q Galv slotted	500	31551	6.8	✗	✗	✗	✓	27.4
	Type 490Q S/S slotted*	1000	31650	13.7	✗	✗	✗	✓	29.9
	Type 493Q S/S slotted*	500	31651	6.8	✗	✗	✗	✓	29.9
	Type 478Q Iron longitudinal	500	03314	12.8	✓	✓	✗	✓	25.8

**H200K QuickLok™ grates**

**LOAD CLASS C - EN 1433 - 56,000lbs - 967psi**

		Length mm	Part No	Wgt lbs					
	Type 605Q Galv mesh	1000	10352	31.7	✗	✗	✗	✓	52.1
	Type 606Q Galv mesh	500	10353	16.1	✗	✗	✗	✓	52.1
	Type 630Q S/S mesh*	1000	16032	31.7	✗	✗	✗	✓	41.3
	Type 631Q S/S mesh*	500	16033	16.1	✗	✗	✗	✓	41.3
	Type 681Q Iron decorative	500	93956	27.0	✓	✗	✗	✓	38.8
	Type 679Q Iron mosaic	500	93957	34.0	✓	✗	✗	✓	24.6

**LOAD CLASS E - EN 1433 - 135,000lbs - 2,321psi**

	Type 678Q Iron longitudinal	500	138129	26.0	✓	✓	✓	✓	25.8
	Type 661Q Iron slotted	500	10351	37.0	✗	✗	✗	✗	59.9

**H300K QuickLok™ grates**

**LOAD CLASS C - EN 1433 - 56,000lbs - 967psi**

	Type 881Q Iron decorative	500	93950	47.0	✓	✗	✗	✓	38.8
	Type 879Q Iron mosaic	500	93958	47.3	✓	✗	✗	✓	24.6

**LOAD CLASS E - EN 1433 - 135,000lbs - 2,321psi**

	Type 878Q Iron longitudinal	500	138130	52.9	✓	✓	✓	✓	25.8
	Type 861Q Iron slotted	500	10431	56.0	✗	✗	✗	✓	50.8

\* Grade 304 stainless steel.



## HK DrainLok™ Grates

DrainLok™ removes the need for bolts and bars, improving channel hydraulics. The DrainLok™ mechanism simply clips into channel edge rail for rapid installation. ACO DrainLok™ grates are fitted with an *anti-shunt* mechanism that restricts unwanted grate movement, improving system durability and longevity.



**1**



### Position grate

Position grate onto channel and align anti-shunt detail with recess in rail.

**2**



### Lock grate

Push down or stand on grate until it clicks into position.

**3**



### Grate removal

To remove first grate, insert grate removal tool into slots at end of grate, pull up sharply. Remaining grates can be removed by hand.

H100K DrainLok™ grates		Length mm	Part No	Wgt lbs					
<b>LOAD CLASS A - EN 1433 - 3,500lbs - 70psi</b>									
	Type 410D Galv perforated	1000	<b>12666</b>	6.3	✓	✓	✓	✓	22.6
	Type 412D Galv perforated	500	<b>12667</b>	3.2	✓	✓	✓	✓	22.6
	Type 451D S/S perforated*	1000	<b>12664</b>	6.3	✓	✓	✓	✓	29.6
	Type 453D S/S perforated*	500	<b>12665</b>	3.2	✓	✓	✓	✓	29.6
	Type 420D Galv slotted	1000	<b>12610</b>	5.9	✗	✗	✗	✓	27.4
	Type 421D Galv slotted	500	<b>12611</b>	3.0	✗	✗	✗	✓	27.4
	Type 450D S/S slotted*	1000	<b>12640</b>	5.9	✗	✗	✗	✓	29.9
	Type 452D S/S slotted*	500	<b>12641</b>	3.0	✗	✗	✗	✓	29.9
	Type 494D Black plastic longitudinal	500	<b>99575</b>	1.8	✓	✗	✗	✓	52.5
	Type 495D Gray plastic longitudinal	500	<b>99576</b>	1.8	✓	✗	✗	✓	52.5
	Type 496D Tan plastic longitudinal	500	<b>99577</b>	1.8	✓	✗	✗	✓	52.5
<b>LOAD CLASS B - EN 1433 - 28,000lbs - 581psi</b>									
	Type 447D S/S longitudinal	1000	<b>142215</b>	8.0	✓	✓	✓	✓	51.3
	Type 448D S/S longitudinal	500	<b>142216</b>	4.0	✓	✓	✓	✓	51.3
	Type 438D Galv longitudinal	1000	<b>132555</b>	10.0	✓	✓	✗	✓	42.3
	Type 437D Galv longitudinal	500	<b>132550</b>	4.2	✓	✓	✗	✓	42.3
<b>LOAD CLASS C - EN 1433 - 56,000lbs - 1,162psi</b>									
	Type 492D Black composite slotted	500	<b>132720</b>	2.2	✗	✓	✗	✓	86.4
	Type 497D Gray composite slotted	500	<b>132266</b>	2.2	✗	✓	✗	✓	35.6
	Type 498D Tan composite slotted	500	<b>132712</b>	2.2	✗	✓	✗	✓	35.6
	Type 425D Galv slotted	1000	<b>12614</b>	8.8	✗	✗	✗	✓	27.4
	Type 426D Galv slotted	500	<b>12615</b>	4.4	✗	✗	✗	✓	27.4
	Type 455D S/S slotted*	1000	<b>12644</b>	8.8	✗	✗	✗	✓	29.9
	Type 457D S/S slotted*	500	<b>12645</b>	4.4	✗	✗	✗	✓	29.9
	Type 411D Galv perforated	1000	<b>12656</b>	11.3	✓	✓	✓	✓	22.6
	Type 413D Galv perforated	500	<b>12657</b>	5.7	✓	✓	✓	✓	22.6
	Type 465D S/S perforated*	1000	<b>12654</b>	11.3	✓	✓	✓	✓	29.6
	Type 466D S/S perforated*	500	<b>12655</b>	5.7	✓	✓	✓	✓	29.6
	Type 405D Galv mesh	1000	<b>132880</b>	7.8	✓	✗	✗	✓	52.1
	Type 406D Galv mesh	500	<b>132881</b>	3.9	✓	✗	✗	✓	52.1
	Type 430D S/S mesh	1000	<b>132882</b>	7.8	✓	✗	✗	✓	41.3
	Type 431D S/S mesh	500	<b>132883</b>	3.9	✓	✗	✗	✓	41.3
	Type 460D Iron slotted	500	<b>12670</b>	10.1	✗	✗	✗	✓	35.6
	Type 476D Iron longitudinal	500	<b>142171</b>	7.0	✓	✓	✓	✓	25.8
	Type 480D Iron wave	500	<b>99578</b>	8.0	✓	✓	✗	✓	26.6

\* Grade 304 stainless steel.

**H200K DrainLok™ grates**

**LOAD CLASS B - EN 1433 - 28,000lbs - 483psi**

Image	Type	Length mm	Part No	Wgt lbs	Wheelchair	Heel	SAFE	Bicycle	Anti-Slip
	Type 647D S/S longitudinal*	1000	142219	17.7	✓	✓	✓	✓	51.3
	Type 648D S/S longitudinal*	500	142220	9.0	✓	✓	✓	✓	51.3

**LOAD CLASS C - EN 1433 - 56,000lbs - 967psi**

Image	Type	Length mm	Part No	Wgt lbs	Wheelchair	Heel	SAFE	Bicycle	Anti-Slip
	Type 611D Galv perforated	1000	138080	21.0	✓	✓	✓	✓	22.6
	Type 613D Galv perforated	500	138081	10.5	✓	✓	✓	✓	22.6

Image	Type	Length mm	Part No	Wgt lbs	Wheelchair	Heel	SAFE	Bicycle	Anti-Slip
	Type 665D S/S perforated*	1000	138082	21.0	✓	✓	✓	✓	29.6
	Type 666D S/S perforated*	500	138083	10.5	✓	✓	✓	✓	29.6

Image	Type	Length mm	Part No	Wgt lbs	Wheelchair	Heel	SAFE	Bicycle	Anti-Slip
	Type 660D Iron slotted	500	142177	18.0	✗	✗	✗	✓	21.4

Image	Type	Length mm	Part No	Wgt lbs	Wheelchair	Heel	SAFE	Bicycle	Anti-Slip
	Type 676D Iron longitudinal	500	142173	18.0	✓	✓	✓	✓	25.8

Image	Type	Length mm	Part No	Wgt lbs	Wheelchair	Heel	SAFE	Bicycle	Anti-Slip
	Type 680D Iron wave	500	99579	28.0	✓	✓	✗	✓	26.6

**H300K DrainLok™ grates**

**LOAD CLASS A - EN 1433 - 3,500lbs - 58psi**

Image	Type	Length mm	Part No	Wgt lbs	Wheelchair	Heel	SAFE	Bicycle	Anti-Slip
	Type 847D S/S longitudinal*	1000	142223	28.6	✓	✓	✓	✓	51.3
	Type 848D S/S longitudinal*	500	142224	14.5	✓	✓	✓	✓	51.3

**LOAD CLASS B - EN 1433 - 28,000lbs - 483psi**

Image	Type	Length mm	Part No	Wgt lbs	Wheelchair	Heel	SAFE	Bicycle	Anti-Slip
	Type 811D Galv perforated	1000	138090	30.9	✓	✓	✓	✓	22.6
	Type 813D Galv perforated	500	138091	15.0	✓	✓	✓	✓	22.6

Image	Type	Length mm	Part No	Wgt lbs	Wheelchair	Heel	SAFE	Bicycle	Anti-Slip
	Type 865D S/S perforated	1000	138092	30.9	✓	✓	✓	✓	29.6
	Type 866D S/S perforated	500	138093	15.0	✓	✓	✓	✓	29.6

**LOAD CLASS C - EN 1433 - 56,000lbs - 967psi**

Image	Type	Length mm	Part No	Wgt lbs	Wheelchair	Heel	SAFE	Bicycle	Anti-Slip
	Type 805D Galv mesh	500	13819	29.5	✗	✗	✗	✓	52.1

Image	Type	Length mm	Part No	Wgt lbs	Wheelchair	Heel	SAFE	Bicycle	Anti-Slip
	Type 830D S/S mesh*	500	13849	29.5	✗	✗	✗	✓	41.3

Image	Type	Length mm	Part No	Wgt lbs	Wheelchair	Heel	SAFE	Bicycle	Anti-Slip
	Type 860D Iron slotted	500	13870	38.0	✗	✗	✗	✓	31.5

Image	Type	Length mm	Part No	Wgt lbs	Wheelchair	Heel	SAFE	Bicycle	Anti-Slip
	Type 876D Iron longitudinal	500	99588	35.0	✓	✓	✓	✓	25.8

Image	Type	Length mm	Part No	Wgt lbs	Wheelchair	Heel	SAFE	Bicycle	Anti-Slip
	Type 880D Iron wave	500	99581	48.0	✓	✓	✗	✓	26.6

\* Grade 304 stainless steel.

**Key**

	Compliant with Americans with Disabilities Act of 1990 Section 4.5.4
	ASME A112.6.3 - 2001 Heel resistant slots less than 0.31" (8mm)
	Heel safe slots equal or less than 0.25" (6.35mm)
	Bicycle Safe to Australian Standard AS 3996 - 2006
	Anti-slip grates - Pendulum test BPN value over 24

**HSK PowerLok & 4-Bolt Grates**

**1**

**Lock grate**

To close, place hook part of tool into 'V' and push towards rail.

**2**

**Grate removal**

To open, insert tool between rail and clip. Rotate tool 90°; device should push away from rail.

**H100SK grates**

**LOAD CLASS F - EN 1433 - 200,000lbs - 4,182psi**

Image	Type	Length mm	Part No	Wgt lbs	Wheelchair	Heel	SAFE	Bicycle	Anti-Slip
	Iron longitudinal	500	96096	13.6	✓	✗	✓	✓	28.1

Image	Type	Length mm	Part No	Wgt lbs	Wheelchair	Heel	SAFE	Bicycle	Anti-Slip
	Iron slotted	500	96082	12.3	✗	✗	✓	✓	35.6

Image	Type	Length mm	Part No	Wgt lbs	Wheelchair	Heel	SAFE	Bicycle	Anti-Slip
	4-Bolt Iron slotted*	500	99590	10.8	✗	✗	✓	✓	35.6

\* Supplied with 4 qty M10 bolts.

**H200SK grates**

**LOAD CLASS E - EN 1433 - 135,000lbs - 2,321psi**

Image	Type	Length mm	Part No	Wgt lbs	Wheelchair	Heel	SAFE	Bicycle	Anti-Slip
	Iron longitudinal	500	72263	26.4	✓	✗	✓	✓	55.6

**LOAD CLASS F - EN 1433 - 200,000lbs - 3,485psi**

Image	Type	Length mm	Part No	Wgt lbs	Wheelchair	Heel	SAFE	Bicycle	Anti-Slip
	Iron slotted	500	02449	30.8	✗	✗	✓	✓	21.4

Image	Type	Length mm	Part No	Wgt lbs	Wheelchair	Heel	SAFE	Bicycle	Anti-Slip
	4-Bolt Iron slotted*	500	99591	26.4	✗	✗	✓	✓	21.4

\* Supplied with 4 qty M10 bolts.

**H300SK grates**

**LOAD CLASS E - EN 1433 - 135,000lbs - 2,321psi**

Image	Type	Length mm	Part No	Wgt lbs	Wheelchair	Heel	SAFE	Bicycle	Anti-Slip
	Iron longitudinal	500	96833	64.0	✓	✓	✓	✓	48.9

**LOAD CLASS F - EN 1433 - 200,000lbs - 3,481psi**

Image	Type	Length mm	Part No	Wgt lbs	Wheelchair	Heel	SAFE	Bicycle	Anti-Slip
	Iron slotted	500	02445	50.0	✗	✗	✓	✓	31.5

Image	Type	Length mm	Part No	Wgt lbs	Wheelchair	Heel	SAFE	Bicycle	Anti-Slip
	4-Bolt Iron slotted*	500	99592	50.2	✗	✗	✓	✓	31.5

\* Supplied with 4 qty M10 bolts.





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the future of drainage**



**ACO, Inc.**

[www.acousa.com](http://www.acousa.com)  
[info@acousa.com](mailto:info@acousa.com)  
(888) 490-9552

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